THE CLAIMS

We claim:

1. A method for making an implantable stent prosthesis having a sidewall comprised of a plurality of struts and at least one channel comprising a channel wall defining a channel space for containing a biologically active material, the method comprises the steps of:

(a) covering a tube or mandrel with a channel material;

(b) forming the channel, having two open ends, by exposing the covered tube or mandrel to a treatment selected from heat treatment, chemical treatment or treatment with an adhesive; and

(c) attaching the channel to the sidewall.

2. The method of claim 1, wherein the channel is attached to the sidewall by attaching the channel to a strut.

3. The method of claim 2, wherein the channel is attached to the strut by fusing the channel to the strut.

4. The method of claim 2, wherein the channel is attached to the sidewall by weaving the channel with a strut.

5. The method of claim 2, which further comprises covering the channel and strut with a covering material

6. The method of claim 1, which further comprises removing the tube or mandrel and introducing the biologically active material into the channel.

7. The method of claim 6, wherein the tube or mandrel is removed before the channel is attached to the sidewall.

8. The method of claim 6, wherein the biologically active material is introduced into the channel before the channel is attached to the sidewall.

9. The method of claim 6, wherein the biologically active material is introduced into the channel using a technique selected from injecting the biologically active material

into the channel, allowing the biologically active material to diffuse into the channel or allowing the biologically active material to migrate into the channel.

10. The method of claim 1, wherein the channel material is selected from poly(L-lactic acid), poly(lactic acid-co-glycotic acid), polyether, polyurethane, or silicone.

11. A method for making an implantable stent prosthesis having a sidewall comprised of (1) a plurality of struts formed from a strut material and (2) at least one channel comprising a channel wall defining a channel space for containing a biologically active material, the method comprises the steps of:

(a) covering a tube or mandrel with a channel material;

(b) forming the channel by exposing the covered tube or mandrel to a treatment selected from heat treatment, chemical treatment, or treatment with an adhesive;

(c) attaching the channel to strut material to form a stent wire; and

(d) weaving the stent wire to form the sidewall of the stent.

12. The method of claim 11 wherein the stent wire is covered with a covering material.

13. The method of claim 12 wherein the covering material is selected from silicones, polyurethanes, thermoplastic elastomers, ethylene vinyl acetate copolymers, polyolefin elastomers, EPDM rubbers, polytetrafluoroethylene or expanded polytetrafluoroethylene.

14. The method of claim 12 wherein the stent wire is covered with the covering material before the stent wire is woven.